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Q) Concat, Sort and reverse the LL
#include <stdio.h>
#include <stdlib.h>

struct Node {
    int val;
    struct Node* next;
};

void sortList(struct Node** node);
void create(struct Node** node);
void display(struct Node** node);
void insert(struct Node** node, int value);
void reverse(struct Node** node);
void concat(struct Node** node1, struct Node** node2);

int main() {
    struct Node* head1 = NULL;
    struct Node* head2 = NULL;
    printf("Create LL 1 : \n");
    create(&head1);
    printf("Create LL 2 : \n");
    create(&head2);

    printf("Concatination of two lists is : \n");
    concat(&head1, &head2);
    display(&head1);

    printf("Sorting of this list : \n");
    sortList(&head1);
    display(&head1);

    printf("Reversing of this list : \n");
    reverse(&head1);
}

void create(struct Node** node) {
    int ch, val;
    while (1) {
        printf("1. Insert\n2. Exit\n");
        scanf("%d", &ch);
        switch (ch) {
            case 1:
                printf("Enter the value : ");
                scanf("%d", &val);
                insert(node, val);
                break;
            case 2:
                return;
            default:
                printf("Invalid choice\n");
        }
    }
}

void insert(struct Node** node, int value) {
    struct Node* new_node = (struct Node*)malloc(sizeof(struct

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Node));
    new_node->val = value;
    new_node->next = *node;
    *node = new_node;
}

void sortList(struct Node** node) {
    struct Node *temp, *i;
    for (temp = *node; temp != NULL; temp = temp->next) {
        for (i = temp->next; i != NULL; i = i->next) {
            if (i->val < temp->val) {
                int tem = i->val;
                i->val = temp->val;
                temp->val = tem;
            }
        }
    }
}

void display(struct Node** node) {
    struct Node* temp = *node;
    while (temp != NULL) {
        printf("%d->", temp->val);
        temp = temp->next;
    }
    printf("NULL\n");
}

void reverse(struct Node* *node) {
    struct Node* temp = *node;
    struct Node* curr = temp;
    struct Node* prev = NULL;
    struct Node* nextOne = NULL;

    while(curr != NULL) {
        nextOne = curr->next;
        curr->next = prev;
        prev = curr;
        curr = nextOne;
    }
    display(&prev);
}

void concat(struct Node* *node1, struct Node* *node2) {
    struct Node* temp1 = *node1;
    struct Node* temp2 = *node2;

    struct Node* dummy = temp1;
    while(dummy->next != NULL) dummy = dummy->next;

    dummy->next = temp2;
}

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Output :

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Create LL 1 :
1. Insert
2. Exit
1
Enter the value : 1
1. Insert
2. Exit
1
Enter the value : 2
1. Insert
2. Exit
1
Enter the value : 3
1. Insert
2. Exit
1
Enter the value : 4
1. Insert
2. Exit
2
Create LL 2 :
1. Insert
2. Exit
1
Enter the value : 5
1. Insert
2. Exit
1
Enter the value : 6
1. Insert
2. Exit
1
Enter the value : 7
1. Insert
2. Exit
1
Enter the value : 8
1. Insert
2. Exit
2
Concatination of two lists is :
4->3->2->1->8->7->6->5->NULL
Sorting of this list :
1->2->3->4->5->6->7->8->NULL
Reversing of this list :
8->7->6->5->4->3->2->1->NULL

```